



For orthodontic & aligner treatments

Product Line 2021

Who we are? What we do?

Swissdentacare SA, headquarter is located in Bioggio, close to the Swiss-Italian border. The origin of the company goes back to the local tradition of high-quality products and well-known Swiss Made brand.

We focus on the development of innovating dental instruments for interproximal enamel reduction treatments, leader in the aligner, orthodontic and general dentistry market. Now IPR can be operated mechanically where before was predominantly manual or none existing.

In order not only to meet cross-border requirements and challenges but also, time and again, we closely work with universities and colleges all over Europe. Most valuable to us is however a continuous exchange of ideas and experiences with general practicing dentists and orthodontists. The insights from their work help **Swissdentacare SA** to market the pioneering calibrated files **G5-ProLign®**.

Swiss quality and precision craftsmanship characterizes every single one of our products. The high cutting efficiency with natural diamonds coating as well as a first-class galvanic conditioning, together result, in a product with optimal abrasive properties granting all Swissdentacare Files an extraordinary abrasive efficiency and accurate treatment result.

The goal of this improved product range is to provide high quality products that are suitable for every IPR procedure, guaranteeing users greater security while performing a minimally invasive treatment with precision.

Swissdentacare SA



Scientific collaborations

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Align Technology Europe Speaker, Diamond Invisalign Certificate, Germany

Australia, VIP Speaker Ormco

Canada, VIP Speaker Ormco

Belgium

International Speaker (EOS, AAO, Angle Society of Europe), Italy

Italy

Italy

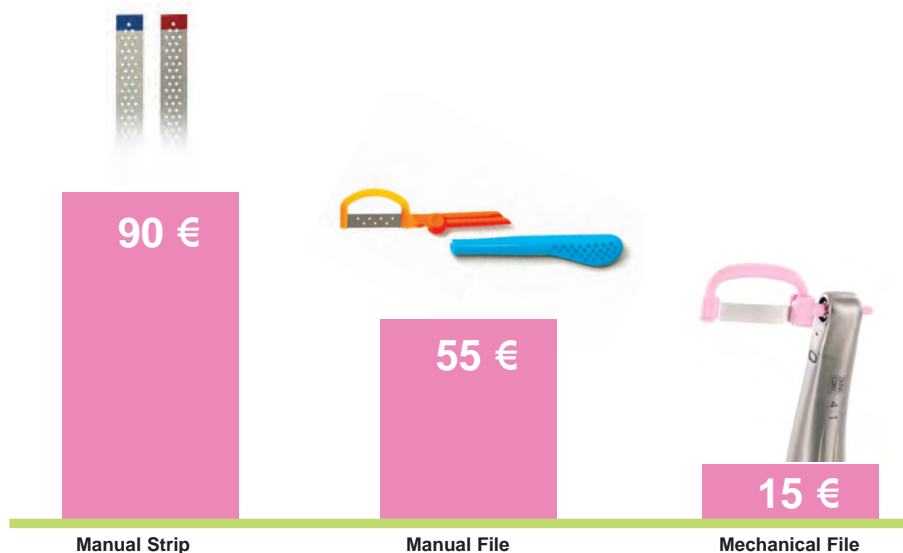
University of Darmstadt, Germany

University of Heidelberg, Germany

KOL, Invisalign Platinum, Gold and Invisalign Teen Certificate

The modern solution from Swissdentacare

Calculated labour costs to reduce 1 mm of enamel
Approximal enamel correction



Data based on university study (in vitro), where the removal rate of various grinding tools were examined¹. On basis of these results, the time required to remove 1 mm of enamel was calculated. Economically cost covering amounts per working hour of German dentists were approximately € 180 in 2002^{2,3}. Taking this data, the shown costs were calculated.

Apart from the economic aspect, the mechanical method ensures substantial advantages

Mechanical



Improved comfort for your patients

- reduced treatment time (max. 5 min vs min. 15 min)
- reduced treatment stress

Manual



Output Optimization

- optimized view on treatment area
- optimized abrasion control

1) Manfredi M., Interproximal enamel reduction: SEM ultrasound analysis of various methods; Dissertation, Università degli studi dell'Insubria, 2006/2007

2) Hartenbach M.; Praxiskosten – Was kostet eine Zahnarztstunde; in: Zahnärzte-Wirtschaftsdienst-05/2002

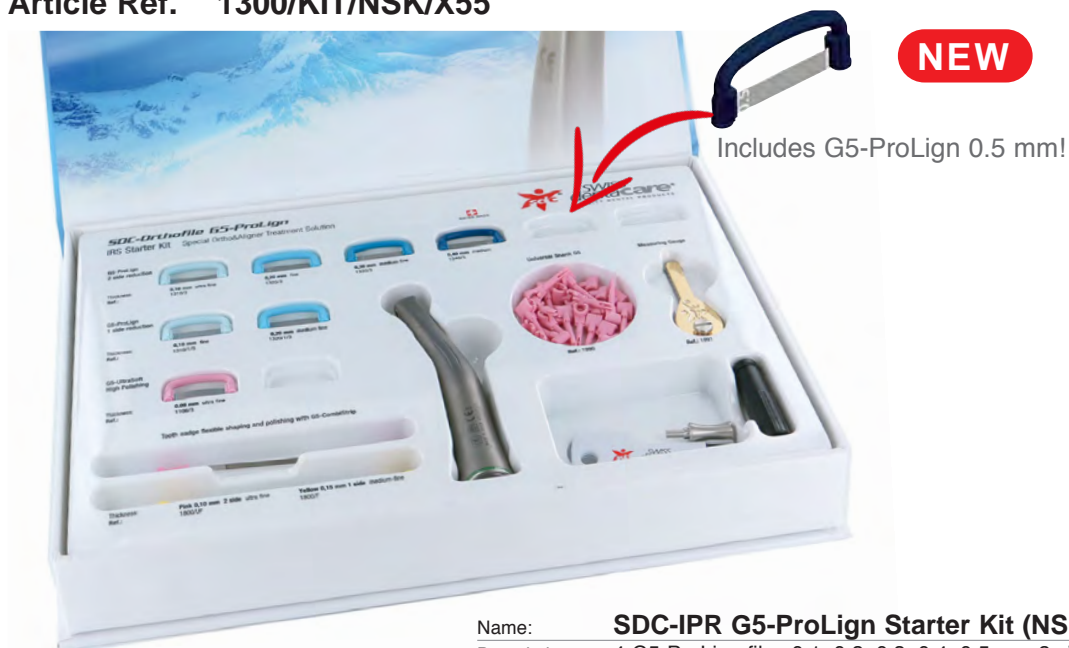
3) „Im Durchschnitt hat eine Ein-Behandler-Praxis einen Kostensatz von 170 – 260 Euro und einen Honorarstundensatz von 290 – 420 Euro.“; aus Tafuro F., Franzen N.; in: Unternehmen Zahnarztpraxis – Die Bausteine des Erfolgs (S. 76, Kostenquote); Springer-Verlag Berlin, 2011

SDC Premium Line

SDC-IPR G5-ProLign Starter Kit

With hand piece

Article Ref. 1300/KIT/NSK/X55



Includes G5-ProLign 0.5 mm!

Name: **SDC-IPR G5-ProLign Starter Kit (NSK X55 HP)**

Description: 4 G5-ProLign files 0.1, 0.2, 0.3, 0.4, 0.5 mm 2 sides
 2 G5-ProLign files 0.1, 0.2 mm 1 side
 1 G5-UltraSoft file 6 μ m 2 sides
 1 CombiStrip file 6 μ m (ultra-fine) polishing, 2 sides
 1 CombiStrip file 15 μ m (fine) contouring, 1 side
1 Hand piece NSK Ti Max X55 with Water
 1 Measuring gauge 5 thicknesses
 20 G5-Shanks Pink (Metal HP)
 1 Nozzle for spray lubrication
 1 Extractor for some instruments
 1 IFU

Article Ref. 1300/KIT/COXO C3-11



Includes G5-ProLign 0.5 mm!

Name: **SDC-IPR G5-ProLign Starter Kit (COXO C3-11 HP)**

Description: 4 G5-ProLign files 0.1, 0.2, 0.3, 0.4, 0.5 mm 2 sides
 2 G5-ProLign files 0.1, 0.2 mm 1 side
 1 G5-UltraSoft file 6 μ m 2 sides
 1 CombiStrip file 6 μ m (ultra-fine) polishing, 2 sides
 1 CombiStrip file 15 μ m (fine) contouring, 1 side
1 Hand piece COXO C3-11 (external irrigation)
 1 Measuring gauge 5 thicknesses
 20 G5-Shanks Pink (Metal HP)
 1 Nozzle for spray lubrication
 1 Extractor for some instruments
 1 IFU

For Orthodontic & Aligner treatments

G5-ProLign calibrated files for treatments with removable Aligners and fixed orthodontics systems

G5-ProLign are safe, accurate and minimally invasive IPR files with calibrated thickness. Especially used for controlled unilateral or bilateral interproximal enamel reduction in aligner and orthodontic treatments.



2 sides coated files



Name:	G5-ProLign	G5-ProLign	G5-ProLign	G5-ProLign	G5-ProLign
Thickness:	0.1 mm	0.2 mm	0.3 mm	0.4 mm	0.5 mm
Refill:	3 pcs. 1 pc.	3 pcs. 1 pc.	3 pcs. 1 pc.	3 pcs. 1 pc.	3 pcs. 1 pc.

G5-UltraSoft for polishing

1 side files



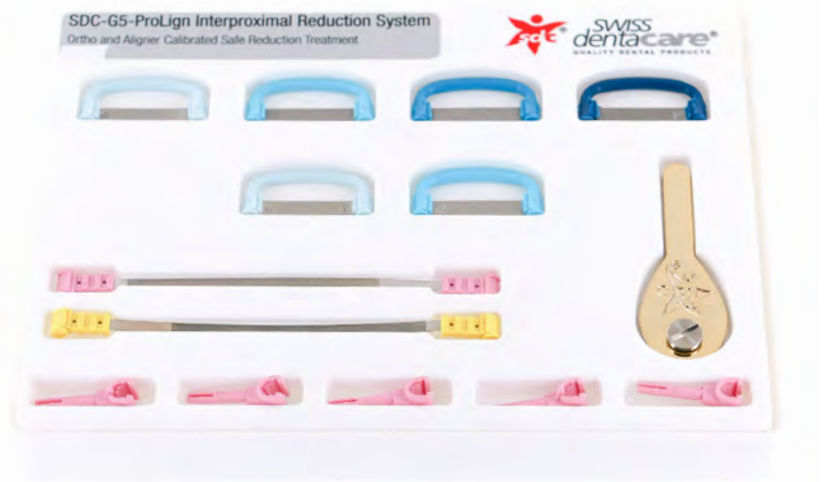
Name:	G5-ProLign	G5-ProLign
Thickness:	0.1 mm	0.2 mm
Refill:	3 pcs. 1 pc.	3 pcs. 1 pc.



Name:	G5-UltraSoft (Polishing)
Grit size:	6 µm 2 sides
Refill:	3 pcs. 1 pc.

SDC-IPR G5-ProLign Ortho Kit without hand piece

Article Ref. 1000/Ortho



Name:	SDC-IPR G5-ProLign Ortho Kit
Description:	4 G5-ProLign files 0.1, 0.2, 0.3, 0.4 mm 2 sides 2 G5-ProLign files 0.1, 0.2 mm 1 side 1 CombiStrip file 6 µm (ultra-fine) polishing 2 sides 1 CombiStrip file 15 µm (fine) contouring 1 side 1 Measuring Gauge 5 thicknesses 5 G5-Shanks Pink (Metal HP) 1 IFU

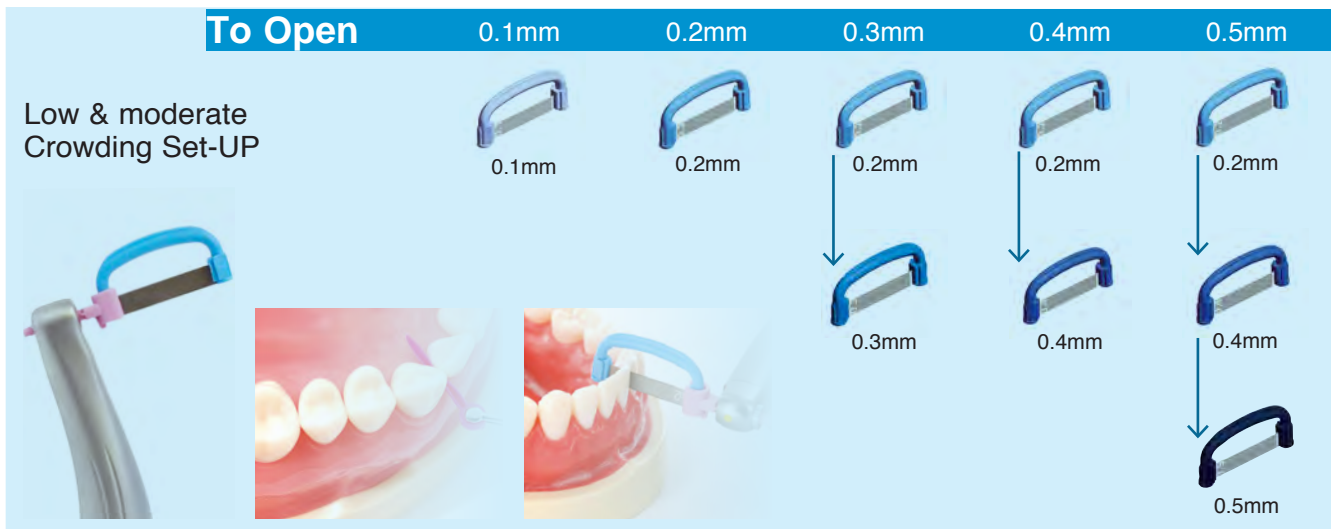
How to use step by step G5-ProLign calibrated files

Suggestion:

for opening the contact point insert a wedge at first,

open the contact point with the 0.1 mm or 0.2 mm G5-ProLign file and continue to expand the interproximal space as desired with the 0.2 mm, 0.3 mm files, etc., in ascending order, to the required width.

- Depending on the clinical situation, the widening of the contact points may be done on one or both sides
- For an accurate enamel reduction move the file back and forward continuously with a cervical movement and a slight vertical pressure



In contrast to an extraction creating large gaps, with Interproximal Enamel Reduction (IPR), the necessary reduction of enamel is split into several small gaps.

That's why it is, in principle, reasonable also to spread the IPR into several treatment sessions: firstly, to treat the easy accessible contact points and secondly, to gradually treat the remaining spaces necessary, once the actual crowding is resolved.

The flattened contact surface additionally helps reduce a possible recurrence of the problem. The black triangles occasionally occurring in the orthodontic treatment of crowded teeth (increasing interproximal spaces) maybe counteracted by targeted contour shaping.

Hand pieces with internal & external water irrigation

No noise! No vibration!

Lubrication is the Key to a long service life of your hand piece

Hand piece Maintenance

To guarantee a long service-life, please refer to lubrication techniques, sterilization and cleaning of the hand piece following manufacturer's instructions manual.

www.uk.nsk-dental.com/support/userguide.html

www.uk.nsk-dental.com/support/maintence/

www.coxotec.com



Name:	NSK Ti Max X55	COXO C3-11 NEW
Type:	Water	External irrigation
Stroke:	1,4mm	1,4mm
Reduction:	4:1	4:1
Use with:	Air and Electric micro motor	Air and Electric micro motor
Micro motor setting speed:	40'000 rpm	40'000 rpm
Maximum Rotating speed:	10'000 oscillations/pm	10'000 oscillations/pm

We advise

to observe the recommended speed indicated in the table and manufacturer's instructions manual.

Do not set speed higher or lower!

For Orthodontic & Aligner treatments

CombiStrip thin flexible diamond coated strip file for mechanical operative mode

Extra thin flexible strip with an ingenious **dual operation mode**. Excellent for high-gloss polishing of interproximal areas, enamel, composites, and cements. **Ideal smart solution for rounding off the tooth profile after proximal reduction**. Also suitable for removing overhanging sections of composite and cement.



Application:

- Ortho & aligners treatments
- Restorative treatments



Name:	CombiStrip	CombiStrip
Grit size:	6 µm (ultra-fine) polishing	15 µm (fine) contouring
Strip height:	2.5 mm 2 sides	2.5 mm 1 side
Article Ref.:	1800/UF	1800/F
Packaging refill:	3 pcs.	3 pcs.

G5-Shank

The G5-Shank system is an ISO Standard file holder for exclusively use with all G5-Instruments and autoclavable.



Name:	G5-Shank (for Metal HP)	G5-Shank Blue (for Oscillating Head)
Article Ref.:	1990/20	FS-150/20
Packaging refill:	20 pieces	20 pieces

Measuring gauge for measuring the interproximal space

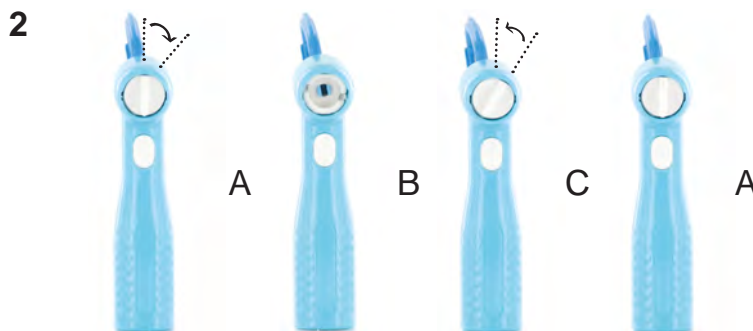
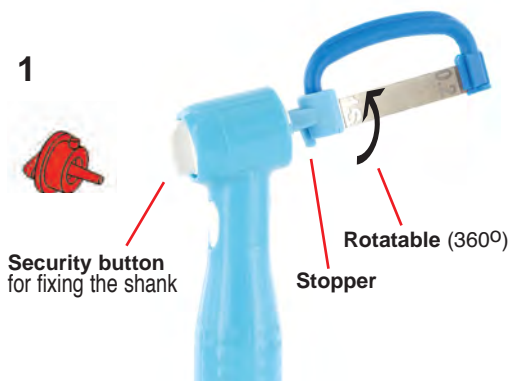


Name:	Measuring Gauge 5 thicknesses	Measuring Gauge 9 thicknesses
Description:	0.10, 0.20, 0.30, 0.40 & 0.50	0.10, 0.12, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40 & 0.50
Article Ref.:	1991	1992
Packaging:	1 pc.	1 pc.

Short Handling Instruction

For *SDC Premium* Line and SDC **BASiC** Line

How to change the Shank from the Oscillating Head



Oscillating Head

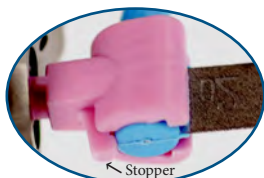
(1,2) Oscillating Head is the first semi disposable plastic head, mechanically driven with reciprocating movement. The security button at the backside (2) ensures that the shank is firmly fixed in position

Changing the shank from the Oscillating Head

(e.g. due to wearing out) please turn the button clockwise by 45° until stop position (2A) and remove it (2B) Now you can change the shank. (2B) To fix it, insert the security button and turn it counter-clockwise (2C)

How to fit the file to the pink shank for metal HP & blue shank for Oscillating Head

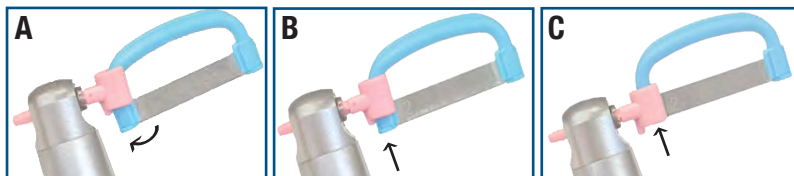
Insert the SDC-G5 shank in the handpiece head completely with the stopper reverted to the bottom. *Stopper prevents the file from slipping out!*



Pink G5-Shank is to be used with EVA reciprocating metal hand pieces



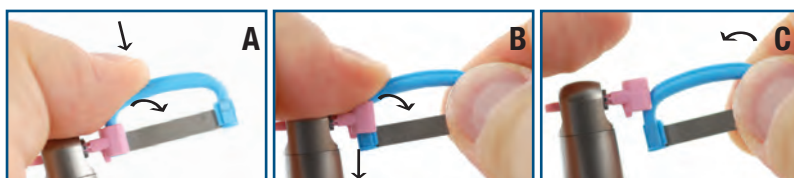
Blue G5-Shank is to be used only with SDC Oscillating Head



Fit the file: (A) by sliding the file arch up-wards from the shank bottom (B) Push the file upwards until it's blocked in place by the "click" sound (C) File is now correctly assembled and ready to use



How to remove the file from the pink shank for metal HP & blue shank for Oscillating Head



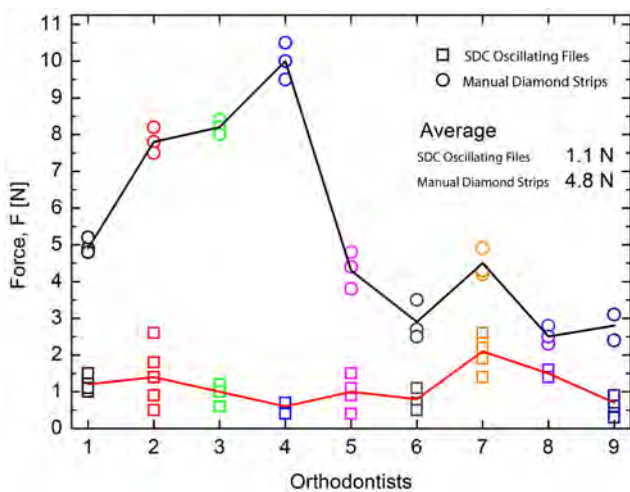
Remove file: (A) Place thumb on the file arch, *not on the hand piece/shank jointure!* (B) With your thumb tip press arch slightly downwards until the file clicks out from shank (C) Slide out file downwards until the beginning of the arch and remove completely

Indications for controlled minimally invasive enamel reduction treatment

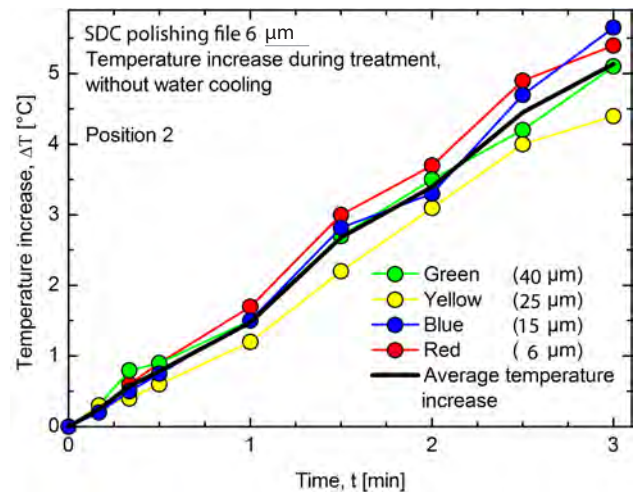
- Slight to moderate crowding
- Bolton Index discrepancies
- Decrease of excessive mesio- inclinations in Upper Class II cases maintaining lower intercanine dimensions to prevent relapse
- Modification of interproximal contacts to maintain long term orthodontic stability
- Relapse checking
- Eliminating unaesthetic black triangles in gingival recession cases
- Aesthetic remodeling

Test: Pressure on tooth by stripping Results after interproximal reduction of enamel.

In a test series at the University of Heidelberg, 9 experienced orthodontists used manual diamond strips and oscillating diamond files to measure the pressure exerted on teeth. The pressure exerted by the oscillating diamond files was substantially lower for all subjects, which allows a substantially less strenuous treatment of patients. The graph on the right clearly shows that the final polishing with 6 μm coated oscillating file leads to harmless increases in temperature in the pulpa within the time span – maximum 1 minute – necessary to achieve a smooth, clean surface..

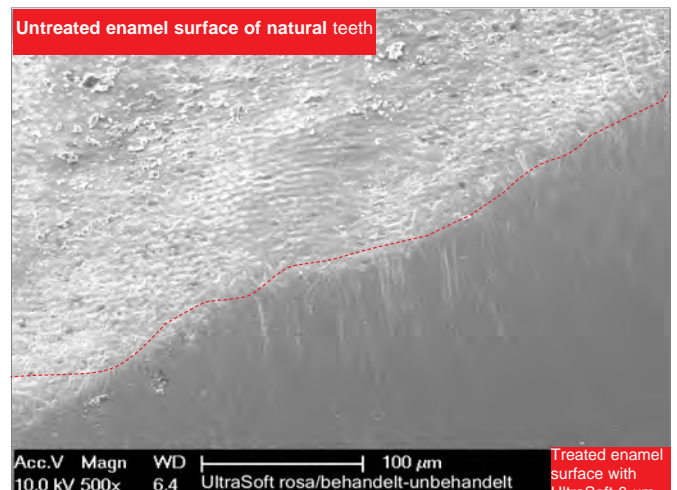
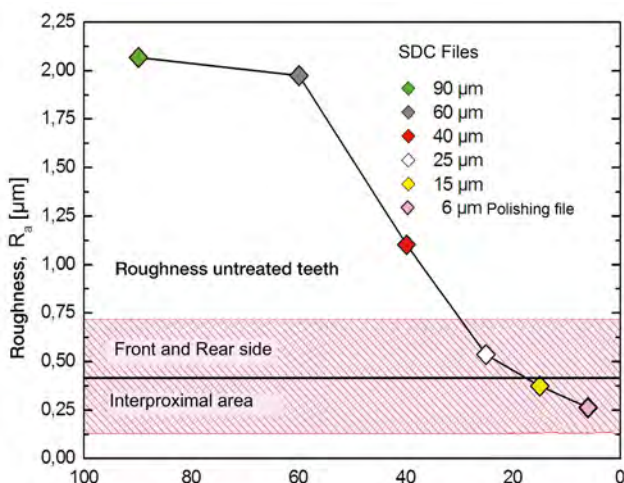


By courtesy of the Institute of Material Science: Technische Universität Darmstadt, Germany



Test: Enamel Roughness Results after interproximal reduction of enamel.

The Institute of Material Research of the Darmstadt Technical University [Institut für Materialforschung, Technische Universität Darmstadt] studied the surface finish of natural teeth before and after a treatment with oscillating diamond coated SDC files. In addition to scanning electron microscopy photographs (fig. on the right), the surface roughness was determined using white-light interferometry (fig. on the left). The hatched area represents the roughness of natural teeth on the anterior and posterior surfaces (upper area) or the interproximal surfaces (lower area). But while the surface structure was still clearly rougher than the untreated areas after using the roughest diamond grain (40 μm), the roughness after polishing with the substantially finer, diamond-coated UltraSoft (6 μm) was already within a range that corresponds to the smoothness of interproximal surfaces.



By courtesy of the Institute of Material Science: Technische Universität Darmstadt, Germany

G5-ProLign Refill packaging

G5-ProLign 2 sides coated files



Name:	G5-ProLign	G5-ProLign	G5-ProLign	G5-ProLign	G5-ProLign
Thickness:	0.1 mm	0.2 mm	0.3 mm	0.4 mm	0.5 mm
Article Ref. 2 sides:	1310/3	1320/3	1330/3	1340/3	1350/3
Refill:	3 pcs.	3 pcs.	3 pcs.	3 pcs.	3 pcs.



Name:	G5-ProLign	G5-ProLign	G5-ProLign	G5-ProLign	G5-ProLign
Thickness:	0.1 mm	0.2 mm	0.3 mm	0.4 mm	0.5 mm
Article Ref. 2 sides:	1310/1U	1320/1U	1330/1U	1340/1U	1350/1U
Refill:	1 piece	1 piece	1 piece	1 piece	1 piece

G5-ProLign 1 side files



Name:	G5-ProLign	G5-ProLign	Name:	G5-ProLign	G5-ProLign
Thickness:	0.1 mm	0.2 mm	Thickness:	0.1 mm	0.2 mm
Article Ref. 1 side:	1310/1/3	1320/1/3	Article Ref. 1 side:	1310/1/1U	1320/1/1U
Refill:	3 pcs.	3 pcs.	Refill:	1 piece	1 piece

G5-ProLign Set



Name:	G5-ProLign Set	G5-ProLign Set
Thickness:	0.1, 0.2, 0.3, 0.4 mm 2 sides	0.1, 0.2, 0.3, 0.4, mm, 2 sides 0.1, 0.2 mm 1 side 6 µm UltraSoft 2 sides
Article Ref.:	300/S4	1300/S7
Refill:	4 pcs.	7 pcs.

Polishing & Accessories Refill packaging

G5-UltraSoft polishing file



Name:	G5-UltraSoft	G5-UltraSoft
Grit size:	6 µm 2 sides	6 µm 2 sides
Article Ref. 2 sides:	1106/3	1106/1U
Refill:	3 pcs.	1 piece

CombiStrip polishing & contouring files



Name:	CombiStrip Set	CombiStrip	CombiStrip
Grit size:	6 µm (ultra-fine), 2 sides 15 µm (fine) 1 side	6 µm (ultra-fine), 2 sides	15 µm (fine) 1 side
Strip height	2.5 mm	2.5 mm	2.5 mm
Article Ref.:	1800/Kit	1800/UF	1800/F
Packaging refills:	6 pcs.	3 pcs.	3 pcs

Refill Shank

SDC BASIC Line



Name:	G5-Shank Pink for metal HP	G5-Shank Pink for metal HP	G5-Shank Blue for Oscillating Head
Article Ref.:	1990/40	1990/20	FS-150/20
Packaging refill:	40 pieces	20 pieces	20 pieces

Measuring Gauge



Name:	Measuring Gauge 5 thicknesses	Measuring Gauge 9 thicknesses
Description:	0.10, 0.20, 0.30, 0.40 & 0.50	0.10, 0.12, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40 & 0.50
Article Ref.:	1991	1992
Packaging:	1 pc.	1 pc.

Important to know !

We recommend to respect these important points:



NSK Ti- Max X55 4:1
 NSK Ti- Max X55L 4:1
 COXO C3-11
 Micro motor:
40'000 rpm

Maximum Rotating Speed:
10'000 oscillations pm

Use with **Air and/or Electric** micro motor



Nose Cone 4:1
 Micro motor:
20'000 rpm

Maximum Rotating Speed:
5'000 oscillations pm

Use with **adjustable speed Air motor and/or Electric** micro motor

1. Always **lubricate** the hand piece before and after use
2. Set the micro motor to the indicated speed in the instructions manual **DO NOT SET SPEED HIGHER OR LOWER!**
3. With the **hand piece and file in motion enter and extract tool** from the interproximal space with a cervical movement
4. During treatment be careful with the pressure exercised **NEVER EXCEED the 3N (approx. 300g)**
5. For hand piece lubrication techniques, sterilization and cleaning follow instructions manual:
<http://www.uk.nsk-dental.com/support/userguide.html>
www.uk.nsk-dental.com/support/maintenance/
www.coxotec.com
6. For files instructions for use and sterilization follow Swissdentacare user's manual:
<http://www.swissdentacare.ch>

Sterilization and Hygiene recommendation

Files are currently advertised as being sterilizable for repeated use. NB: The nature of particle entrapment within the grit makes the practice of using recycled files among different patients discretionary. We advise to always sterilize the files in an autoclave with a cycle B "prion". This is in compliance with the EU standard EN13060.

Program table:			
Sterilization Cycles	B Standard 134	B Prion 134	B Standard 121
Temperature	135.5° C	135.5° C	122.5° C
Pressure	2.16 bar	2.16 bar	1.14 bar
Duration of the plateau	4'	18'	15'
Duration of the drying phase	15'	15'	20'
Total duration:	30'- 40'	44'- 54'	50'- 60'

Place the used instruments in an ultrasonic cleaner with a special disinfectant containing a corrosion inhibitor additive.

The instruments should not be immersed too long in the solution to ensure that the color coding is not removed. Do not use highly aggressive chemical products (e.g. hydrochloric acid, hydrogen peroxide) as they could corrode the instruments.

These substances can also impair the technical properties of the plastics, i.e. change their hardness and durability.

The consumption of the instrument lifetime until it's worn out, replacement and disposal is an exclusive decision of the physician according to his operative needs.

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